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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,151	09/24/2003	Jae Bum Kim	041501-5579	2764
9629	7590	12/07/2005	EXAMINER	
MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			DI GRAZIO, JEANNE A	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 12/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/668,151

Applicant(s)

KIM ET AL.

Examiner

Jeanne A. Di Grazio

Art Unit

2871



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 September 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 4-44 is/are pending in the application.  
4a) Of the above claim(s) 5,9-25,27 and 30-44 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1,2,4,6-8,26,28 and 29 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claims***

Claims 1, 2 and 4-44 are pending with claims 5, 9-25, 27 and 30-44 having been previously withdrawn from further consideration per Applicant's election with traverse of Species A, claims 1-4, 6-8, 26, 28 and 29 readable thereon in the reply filed on April 14, 2005.

Claim 3 has been cancelled per Amendment dated September 29, 2005. Claim 1 has been amended per said Amendment to incorporate claim 3.

Thus, claims 1-2, 4, 6-8, 26, 28 and 29 are pending.

### ***Priority***

Priority to Korean Patent Applications 2002-58193 (Sept. 25, 2002) and 2002-58525 (Sept. 26, 2002) is claimed.

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

*Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by United States Patent 6,697,130 B2 (to Weindorf et al.)(Filed: Dec. 28, 2001 and provisional filed Jan. 16, 2001)(Assignee: Visteon Global Technologies, Inc.).

Regarding claim 1 (amended), Weindorf (Figure 4) illustrates a LED circuit (400) formed on a LED circuit board (=substrate) for use in a liquid crystal display. Weindorf explains that the LEDs may be white or colored LEDs such as red, green and blue LEDs, other colored LEDs, or a combination of different types of LEDs (Column 6, Lines 57-60)(=a plurality of white, red, green and blue light emitting diodes arranged on the substrate).

Weindorf also discloses that the LEDs may be white or colored LEDs, such as red, green and blue LEDs (Weindorf, Column 6, Lines 57-60)(Applicant's "wherein the plurality of white, red, green, and blue light emitting diodes are sequentially disposed in an order of white, red, green, and blue").

Thus, claim 1 is rejected.

Regarding claim 2, as noted above, Weindorf explains that any combination of LEDs is possible (Column 6, Lines 57-60).

Thus, claim 2 is rejected.

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4, 7-8, 26, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 6,781,648 B2 (to Takahashi et al.) in view of United States Patent 6,697,130 B2 (to Weindorf et al.).

As to claim 4, Takahashi teaches and discloses a liquid crystal display device and shows in Figure 1, a light guide (120)(shaped like a plate – see Figure 5) disposed at a rear of liquid crystal display panel of the liquid crystal display (10), at least one light source (101) disposed along one side of the light guide (120), the light source including a plurality of light emitting diodes (R, G and B).

Figure 3 of the same reference teaches a cup-shaped window (105) in which the LEDs are mounted (Column 5, Lines 16-18)(= housing disposed adjacent to the light guiding plate for concentrating light from the light source along a first direction).

Figure 1 also shows a reflection layer (16) disposed under the light guide (120) for reflecting light leaking along a side of the liquid crystal display panel (10) opposite to the light guide (120).

Takahashi does not appear to explicitly specify that the light emitting diodes are disposed in order of white, red, green and blue.

However, Weindorf is drawn to a flexible LED backlighting circuit for liquid crystal displays (Title, entire patent). Weindorf (Figure 4) illustrates a LED circuit (400) formed on a LED circuit board (=substrate) for use in a liquid crystal display. Weindorf explains that the LEDs may be white or colored LEDs such as red, green and blue LEDs, other colored LEDs, or a combination of different types of LEDs (Column 6, Lines 57-60)(=a plurality of white, red, green and blue light emitting diodes arranged on the substrate).

It would have been obvious to one of ordinary skill in the art of liquid crystals at the time the invention was made to modify Takahashi in view of Weindorf to select a particular order of LEDs as a function of resistance to achieve proper white balance (Weindorf, Column 7, Lines 41-53).

Thus, claim 4 is rejected.

As to claims 7 and 8, Takahashi shows in Figure 3 the arrangement of the cup-shaped window in relation to the LEDs.

Thus, claims 7 and 8 are rejected.

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As to claims 26, 28 and 29, the method of fabricating a backlight device for a liquid crystal display as recited in claims 26, 28 and 29 would have been obvious to one of ordinary skill in the art of liquid crystal displays at the time the invention was made in view of the structures as taught and disclosed by Takahashi in view of Weindorf.

Thus, claims 26, 28 and 29 are rejected.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 6,781,648 B2 (to Takahashi et al.) in view of United States Patent 6,697,130 B2 (to Weindorf et al.) and further in view of European Patent Application EP 0580 908 A1 (to Uratani et al.).

As to claim 6, Takahashi does not appear to explicitly specify that the housing includes aluminum.

Uratani is drawn to a liquid crystal display device with a back light of a given thickness. Uratani teaches that a light guide includes an aluminum plate to achieve a high reflectance (Abstract, entire patent).

It would have been obvious to one of ordinary skill in the art of liquid crystals at the time the invention was made to modify Takahashi in view of Uratani because aluminum has excellent reflectance.

Thus, claim 6 is rejected.

*Response to Arguments*

Applicant's arguments filed September 29, 2005 have been fully considered but they are not persuasive.

Applicant's only argument is that "Weindorf et al. fails to teach or suggest the feature of 'the plurality of white, red, green, and blue light emitting diodes are sequentially disposed in an order of white, red, green, and blue' as recited by independent claim 1, newly-amended by incorporating the feature of claim 3."

The Examiner respectfully disagrees for at least the following reasons:

(1) Applicant broadly claims "*an order*." 'An' is not limited to strictly the specific order of white, red, green and blue. Rather, 'an order' means any combination of the above colors.

(2) The above interpretation is consistent with Applicant's figures. Figure 7 shows an exemplary arrangement of LEDs in a backlight device. Figure 11 shows another exemplary arrangement of LEDs in a backlight device. See Specification at page 20.

(3) Applicant has also previously argued that claim 1 is generic to all species (See Election of April 14, 2005 at page 2).

Thus, the claim language does not appear to be limited to any set order of the LEDs.

(4) Please note that the Weindorf reference specifies that the LEDs may be any color of white, red, green and blue (Weindorf, Column 6, Lines 57-60) as noted previously.



*Conclusion*

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeanne A. Di Grazio whose telephone number is (571)272-2289.

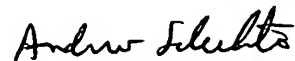
The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim, can be reached on (571)272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeanne Andrea Di Grazio  
Patent Examiner  
Art Unit 2871

JDG

  
**ANDREW SCHECHTER**  
**PRIMARY EXAMINER**